

**REMARKS**

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-15 are pending in the application. Claims 1 and 8 are independent. Reconsideration of this application is respectfully requested.

**Drawings**

It is respectfully submitted that the drawings comply with U.S.P.T.O. requirements. Accordingly, a form PTO-948, indicating the drawings have been approved by the Official Draftsperson, is respectfully requested.

**Claim Rejection under 35 U.S.C. 103(a)**

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants admitted prior art (APA in view of U.S. patent 6,078,365 to Ueda et al.). This rejection is respectfully traversed.

Independent claim 1 recites a combination of elements in a liquid crystal display device, including “a first metal layer on the second semiconductor layer, the first metal layer patterned in a same pattern as the second semiconductor layer such that the first metal layer and second semiconductor layer define the separation region.”

Independent claim 8 recites a combination of steps in a method of forming of a liquid crystal display device, including “patterning the first metal layer and the second semiconductor layer in a same pattern.”

It is respectfully submitted that the combinations of elements and steps recited in independent claims 1 and 8 are not disclosed or made obvious by the applied prior art of record including the APA and Ueda et al.

The Office Action states on page 3 that the APA discloses a second semiconductor layer 17 and source and drain electrodes 5 and 7 on the semiconductor layer where the source and drain electrodes 5 and 7 equate with the claimed first metal layer and this first metal layer is patterned in the same pattern as the second semiconductor layer 17 such that the first metal layer and the second semiconductor layer define a separation region. Applicants respectfully traverse this interpretation in the Office Action. Fig. 3C of the present invention does not show that semiconductor layer 17 and the source and drain electrodes 5 and 7 are formed in the same pattern. The source and drain electrodes 5 and 7 extend along the side wall of the semiconductor layer 15 as well as on a portion of an insulating film 9. Therefore, the APA does not teach or suggest “a first metal layer on the second semiconductor layer, the first metal layer patterned in a same pattern as the second semiconductor layer such that the first metal layer and second semiconductor layer define the separation region,” as recited in claim 1. Likewise, the APA does not teach or suggest “patterning the first metal layer and the second semiconductor layer in a same pattern,” as recited in claim 8.

The Office Action relies on Ueda et al. for a teaching of the source and drain being comprised of a combination of aluminum and molybdenum. Ueda et al. discloses depositing first and second semiconductor layers 77 and 78 on a gate insulating film 76, depositing a metal film 79 and a resist pattern 80 thereon and patterning them, and etching the first and second semiconductor layers 77 and 78 and the gate insulating film 76 using the patterned resist pattern 80 and the metal film 79. Moreover, Ueda et al. teaches that the metal film 79 has a Mo/Al/Mo structure. However, Ueda et al. does not teach that a metal layer is formed on a second semiconductor layer, where both of these layers are formed in the same pattern, as required by the present invention. Therefore, Ueda et al. does not teach or suggest the above cited limitations of claims 1 and 8, and therefore fails to cure the deficiencies of the APA with respect to claims 1 and 8.

In view of the forgoing, it is respectfully submitted that the applied prior art of record, including the APA and Ueda et al. fail to teach or suggest the combination of elements and steps set forth in independent claims 1 and 8. It is believed that independent claims 1 and 8 are allowable. Since the remaining claims depend from these allowable independent claims, they are also allowable for at least the above reasons, as well as for the additional limitations provided thereby. Thus, all claims are allowable and reconsideration and withdrawal of the rejection under 35 U.S.C. 103(a) are respectfully requested.

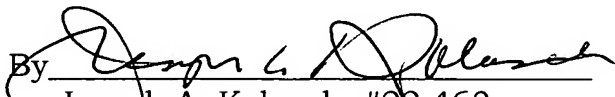
**CONCLUSION**

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Sam Bhattacharya (Reg. No. 48,107) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By   
Joseph A. Kolasch, #22,463

JAK/SB/jmb:mmi  
2658-0283P

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000